

Claims

1. A separator for a battery, which is coated with a gel polymer over 40-60% of a total separator area.

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2. The separator of claim 1, wherein the gel polymer is coated on the separator by a gravure coating method.

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3. The separator of claim 1, wherein the separator has a gel polymer-coated part and a non-coated part patterned in a regular shape.

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4. The separator of claim 1, wherein the gel polymer is selected from the group consisting of polyvinylidene fluoride (PVDF); polyethylene glycol diacrylate; polyalkylene glycol diacrylates; polyalkylene glycol dimethacrylates; ether polymers; carbonate polymers; acrylonitrile polymers; copolymers and crosslinked polymers consisting of at least two of them; and fluoropolymers.

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5. An electrode assembly for a rechargeable lithium battery, which comprises a positive electrode, a negative electrode, and a separator as defined in any one of claims 1 to 4.

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6. A rechargeable lithium battery comprising an electrode assembly as defined in claim 5, a positive terminal, a negative terminal and an aluminum-laminated film.

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